US Army Corps
of Engineers ®
New England District

November 2002

AVIAN STUDIES

In order to evaluate potential project effects on avian communities in Nantucket Sound for inclusion in the EIS, the following issues and scope of studies are being reviewed and discussed by inter-agency (federal and state) staff and cooperating agencies, along with input from interest groups such as the Massachusetts Audubon Society. Existing historical data sets and literature will be supplemented with additional site-specific field studies. The project proponent has proposed studies being conducted to characterize existing conditions and trends over a two-year period, and will address the following issues:

- the spatial and temporal distribution of avian species known to frequent Nantucket Sound;
- the level of seasonal migratory bird activity;
- life cycle variations of protected species (specifically Roseate terns, piping plover, and common terns), as well as winter waterbirds;
- assessment of avian activity at the three proposed alternative sites in Nantucket Sound; and
- visual or electronic observations of avian activity under different seasonal and meteorological conditions.

Aerial Surveys allow observers to record the presence, precise location and general activity of avian species with minimal disturbance to the flocks. The aerial surveys establish temporal and spatial distribution of avian species, along with trends of specific species over a two-year period. Each survey covers approximately 260 linear miles of transect and includes avian activities observed within an area of approximately 65 square miles. Twenty-two surveys have been completed to date, beginning in July of 2001, with 16 additional surveys scheduled through June 2003.

Boat Surveys follow the same transects and compliment the aerial surveys. They can be conducted in less favorable weather and provide information on specific species, activity, altitude and flock size. Two systematic surveys were completed in 2002. In addition seven non-systematic boat surveys were conducted during spring / summer / fall 2002, and several more will be conducted during 2003.

Radar Studies are effective in gathering continuous electronic data on avian activities particularly at night, at high altitudes and during inclement weather. Radar can depict and quantify spring and fall migration and help determine life cycle variations of protected species. Barge based radar study was conducted for 30 consecutive days throughout May 2002, and land based (Cape Pogue, Martha's Vineyard) radar was conducted for 30 consecutive days throughout September 2002. In addition 23 days of "ground truthing" was conducted by boat and from the barge to validate the identification of radar signals.

The Corps is continuing to look at how much data will be necessary for inclusion in the Draft EIS.